synchronism with the trigger signal 38 output from the delay circuit 37. The frequency $f_p$ of the pulse signal and the output period ($\Delta t2$) of each pulse of the pulse signal are set arbitrarily using the external input circuit 39. More specifically, the A/D converter 27 executes sampling, using, as a sampling clock signal, a pulse signal from the pulse generator 45, and executes sampling only within each output period ($\Delta t2$) (see FIG. 6E). Accordingly, the fluorescent signal, which attenuates with time, can be reliably sampled, without missing its peaks, by adjusting the delay time ($\Delta t1$) of the delay circuit 37 and the output period ($\Delta t2$) of each pulse of the pulse generator 45. Moreover, timing adjustment can be executed so that no sampling is executed where no fluorescent signal is generated. For example, when applying the above-described structure to a laser scanning microscope that uses a two-photon process, if sampling is executed one hundred times during the generation of one pulse of a laser beam, the above structure can be used by setting the output period ($\Delta t2$) at 10 ns or less and setting the frequency of the pulse signal of the pulse generator 45 at about 10 GHz, since, in the two-photon process, a

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